

Applicant: S. Jayaraman
Application No.: 09/941,327
Examiner: V. Bui

Amendments to the Claims:

1. (Currently Amended) A tubular stent for supporting arterial and venous conduits in the human body, the tubular stent comprising: a longitudinal cylindrical metal base structure having a varying thickness and at least two different patterns along its longitudinal length, the patterns joined by struts having a predetermined articulation, the base structure coated by at least two layers having a depth not exceeding ten microns, wherein one of the layers including a drug inhibiting restenosis, with the drug concentration varying along the longitudinal length.

2. (Previously Presented) The stent according to claim 1 wherein a first pattern is a closed cell design and a second pattern is an open cell design.

3.-11. (Cancelled)

12. (Withdrawn) The stent according to claim 1 wherein the at least two ~~different patterns~~ layers vary in ~~base-metal~~ thickness.

13. (Previously Presented) The stent according to claim 1 wherein the coatings are of a radiopaque substance.

14. (Previously Presented) The stent according to claim 1 wherein the coatings are of a biological substance.

15. (Previously Presented) The stent according to claim 1 wherein the coatings are polymeric.

16. (Cancelled)

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17. (Withdrawn) The stent according to claim 14 wherein the first pattern at each end of the base structure has a thicker layer of the biological substance than the second pattern at a mid-portion of the base structure.

18.-22. (Cancelled)

23. (Currently Amended) A tubular stent comprising:

a longitudinal cylindrical base structure having a first end portion, a second end portion, and a mid-portion interposed between the first and second end portions, the first and second end portions having a first pattern and the mid portion having as a second pattern different from the first pattern, the second pattern including a plurality of articulations, ~~and~~

a plurality of linear strut members connecting the mid portion to the first and second end portions, wherein the mid portion includes a plurality of articulations; and

a surface coating having at least two layers coating the longitudinal cylindrical base structure, wherein the surface coating includes a drug inhibiting restenosis, with the drug having a higher concentration at the first and second end portions than at the mid portion.

24. (Previously Presented) The tubular stent of claim 23, wherein the plurality of articulations are a plurality of undulating members.

25. (Previously Presented) The tubular stent of claim 23, wherein the first pattern is an open cell design and the second pattern is a closed cell design.

26. (Previously Presented) The tubular stent of claim 23, wherein the longitudinal cylindrical base structure is made of a metal.

27. (Withdrawn) The tubular stent of claim 23, wherein the longitudinal cylindrical base structure has a thickness greater at the first and second end portions than at the mid portion.

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28. (Cancelled)

29. (Currently Amended) The tubular stent of claim ~~28~~ 23, wherein the at least two layers comprise a material selected from the group consisting of metallic, biological, radiopaque material, synthetic material, polymeric material, and combinations thereof.

30. (Withdrawn) The tubular stent of claim ~~28~~ 23, wherein the at least two layers have a thickness greater on the first and second end portions than on the mid portion.

31. (Currently Amended) The tubular stent of claims ~~28~~ 23, wherein the at least two layers have a thickness of less than about 10 micron.

32. (Currently Amended) A tubular stent comprising:
a longitudinal cylindrical base structure having a first end portion, a second end portion, and a mid-portion interposed between the first and second end portions, the first and second end portions having an open cell design and the mid-portion having a closed cell design, wherein the closed cell design includes a plurality of undulating member;
a plurality of linear strut members connecting the mid-portion to the first and second end portions; and
a surface coating having at least two layers coating the longitudinal cylindrical base structure, wherein the at least two layers have a thickness greater on the first and second end portions than on the mid portion.

33. (Withdrawn) The tubular stent of claim 32, wherein the longitudinal cylindrical base structure has a thickness greater at the first and second end portions than at the mid portion.

34. (Previously Presented) The tubular stent of claim 32, wherein the at least two layers comprise a material selected from the group consisting of metallic, biological, radiopaque material, synthetic material, polymeric material, and combinations thereof.

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35. (Currently amended) The tubular stent of claim 32, wherein the at least two layers ~~have include a thickness greater~~ a drug having a higher concentration on the first and second end portions than on the mid portion

36. (Previously Presented) The tubular stent of claims 32, wherein the at least two layers have a thickness of less than about 10 micron.

37. (New) The tubular stent of claim 23, wherein the longitudinal cylindrical base structure has a thickness about twenty-five percent greater at the first and second end portions than at the mid portion.